



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,156	01/11/2006	Shingo Fujii	1422-0706PUS1	6018
2292 7590 02/03/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER SULLIVAN, DANIELLE D	
			ART UNIT	PAPER NUMBER
			1616	
			NOTIFICATION DATE	DELIVERY MODE
			02/03/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/564,156	Applicant(s) FUJII ET AL.	
	Examiner DANIELLE SULLIVAN	Art Unit 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/11/2006, 4/11/2006 and 3/20/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-7 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Yasuyori et al. (JP 2003-012422, English Machine translation).

Yasuyori et al. discloses a method of exterminating insects by spraying and aerosol product [0001]. The aerosol is in a pressure resistant container that contains a solvent, an active compound and a propellant [0007]. The solvent comprises paraffin hydrocarbons [0010]. The compound is contained in 0.01-5% of the solvent [0008]. The aerosol has a mean particle diameter of 20-40 um [0013]. The aperture of the actuator ranges from 0.9-2mm within a pressure of 0.353 MPa (3-6 kg/cm³ at 25 degrees C) [0016-17]. The spraying amount is 0.4-2.5 g/sec in 25 degrees C [0021].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1616

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuyori et al. (JP 2003-012422) in view of Hayashi et al. (US 6,695,227).

Applicant's Invention

Applicant claims an aerosol comprising a disinfectant, a solvent and a propellant, in a pressure-resistant container with an actuator, wherein the solvent is 0-10% by volume and the actuator has an orifice diameter of from 0.7-2 mm. Claim 6 specifies the disinfectant is selected from metofluthrin, phthalthrins, d-T80-phthlathrin, d,d-T80-prallethrin, d,d-T98-prallethrin, d-T80-resmethrin, transfluthrin, imiprothrin, cyphenothrin and d,d-T-cyphenothrin. Claim 7 specifies the average particle diameter is from 15 to 45 μm , at 25 degrees Celsius, at a position having a straight line distance from an orifice of 150 cm.

Determination of the scope and the content of the prior art

(MPEP 2141.01)

The teachings of Yasuyori et al. are addressed in above 102(b) rejection. Yasuyori et al. teach that the average particle diameter is from 20 to 40 μm at 25 degrees Celsius at a position having a straight line distance from an orifice of 50 cm. Yasuyori et al. teach that the insecticide may be selected from pyrethroid compounds, such as permethrin [0025].

Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)

Yasuyori et al. does not teach a straight line distance from an orifice of 150 cm. Furthermore, Yasuyori et al. does not disclose the disinfestant is selected from metofluthrin, phthalthrin, d-T80-phtrlatrin, d,d-T80-prallethrin, d,d-T98-prallethrin, d-T80-resmethrin, transflutrin, imiprothrin, cyphenothrin and d,d-T-cyphenothrin. It is for this reason that Hayashi et al. is joined.

Hayashi et al. teach an aerosol spraying apparatus where the active ingredients include pyrethroid compounds selected from resmethrin, prallethrin, phthalthrin, permethrin, pyphenothrin and transfluthrin (column 8, lines 2-40). The pyrethroids are preferred from the standpoint of safety (column 7, lines 53-55). The spraying apparatus can allow the sprayed contents to reach 2.5 m from the spray orifice by adjusting the propellant, spraying pressure or by using the apparatus in a state where it hangs on or down from a wall so the aerosol contents are allowed to reach a distance of 2.5 or more (column 26, line 59 thru column 27, line 7).

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Yasuyori et al. and Hayashi et al. to further include adjusting the straight line distance from an orifice to 150 cm. One would have been motivated to manipulate ranges during routine experimentation to discover the optimum or workable range because Hayashi et al. teach that sprayed contents can reach 2.5 m

Art Unit: 1616

by adjusting the propellant, spraying pressure or by using the apparatus in a state where it hangs on or down from a wall.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Yasuyori et al. and Hayashi et al. to further include pyrethroid compounds selected from resmethrin, prallethrin, phthalthrin, permethrin, pyphenothrin and transfluthrin. One would have been motivated to include these compounds because Hayashi et al. teach that pyrethroid compounds are safer than other insecticides.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danielle Sullivan whose telephone number is (571) 270-3285. The examiner can normally be reached on 7:30 AM - 5:00 PM Mon-Thur EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on (571) 272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Danielle Sullivan
Patent Examiner
Art Unit 1616

/Mina Haghighatian/
Primary Examiner, Art Unit 1616

—\